# PROJECT DESCRIPTION

### I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF BATTERY BACKUP AT THE INTERSECTION OF MD 404 AND MD 382 IN CAROLINE COUNTY. MD 404 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

## II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULL- TRAFFIC-ACUATED MODE. THERE IS EXCLUSIVE/PERMISSIVE LEFT TURN PHASING FOR THE EAST AND WEST APPROACH OF MD 404. MD 404 APPROACHES OPERATE CONCURRENTLY AND THE MD 328/RIVER ROAD APPROACHES OPERATE CONCURRENTLY. HAZARD IDENTIFICATION BEACONS (HIB'S) WILL BE LOCATED IN ADVANCE OF THE INTERSECTION FOR EAST/WESTBOUND MD 404 AND WILL FLASH AT TIMES DURING THE SIGNAL OPERATION.

#### EQUIPMENT LIST FOR CONTRACT NO. XX6615185

### B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2002	1	CY	TEST PIT EXCAVATION
6002	25	SF	5 INCH CONCRETE SIDEWALK
8012	1	EA	EMBEDDED METERED SERVICE PEDESTAL
8023	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8036	40	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8038	35	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8042	45	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	10	LF	ELECTRICAL CABLE I-CONDUCTOR NO.8 AWG-THHN/THWN
8056	55	LF.	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
8062	1	EA	FURNISH AND INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)

# <u>CONTACTS</u>

The contact persons for this project are as follows:

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Mr. Mike Lewis Assistant District Engineer - Maintenance Phone: (410) 810-3250

Mr. Barry Clothier Utility Engineer Phone: (410) 810–3275

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Mr. Ed Rodenhizer Supervisor, Signal Operations Phone: 410-787-7650

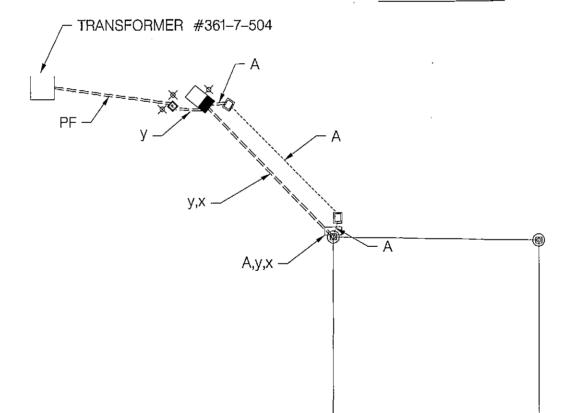
PHASE CHART

	2 (R) (Y-) Y) (G) G	3 (R) (Y) (G)	4 R Y G	5 (Y) (R) (G) (G)	6 (R) (Y- Y) (G- G)	7 (R) (Y) (G)	8 R Y G	9 R Y G	10 (R) (Y) (G)	11 (R) (Y) (G)	12 (R) (Y) (G)	13 (R) (Y) (G)	14 (R) (Y) (G)	15 (Y)	16 (Y)	17 (Y)	18 (Y)
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PHASE 1 AND 5	<b>∢</b> -G/R	<b>∢</b> -G/R	R	R	<b>←</b> G/R	<b>←</b> G/R	R	R	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y	
1 AND 5 CHANGE TO	1 AND 6,	2 AND	5, OR	2 AND	6														
PHASE 1 AND 6	<b>←</b> G/G	<b>4</b> -G/G	G	G	R	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y	_ }
1 CHANGE	<b>4</b> -Y/G	<b>←</b> Y/G	G	G	R	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y =	
PHASE 2 AND 5	R	R	R	R	<b>←</b> G/G	<b>←</b> G/G	G	G	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y <	<u> </u>
5 CHANGE	R	R	R	R	<b>∢</b> -Y/G	<b>4</b> -Y/G	G	G	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y	<u> </u>
PHASE 2 AND 6	G	G	G	G	G	G	G	G	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y <	<del></del>
2 AND 6 CHANGE	Y	Υ	Υ	Υ	Y	Y	Υ	Υ	R	R	R	R	R	R	FL/Y	FL/Y	FL/Y	FL/Y -	—
PHASE 4 AND 8	R	R	R	R	R	R	R	R	G	G	G	G	G	G	FL/Y	FL/Y	FL/Y	FL/Y	4
4 AND 8 CHANGE	R	R	R	R	R	R	R	R	Υ	Y	Y	Υ	Y	Y	FL/Y	FL/Y	FL/Y	FL/Y	\[ \]
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	+ Δ 

MD 404 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION





TERMINATE 7 CONDUCTOR CABLE IN POLE MOUNTED CABINET.

WIRING KEY

- A > 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- x } NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- y > 3 WIRES, I CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG THHN/THWN)
- PF } POWER FEED BY OTHERS
- + GROUND ROD

TOD NO: XX661-06 SHA NO: CO287B51 MD 404 @ MD 328



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

MD 404 AND MD 328/RIVER ROAD HILLSBORO, MD

GENERAL INFORMATION PLAN SHEET

SCALE NONE ADVERTISED DATE 09/15/11 CONTRACT NO. XX6615185 SHEET NO. 2 OF 2

BRUDIS & ASSOCIATES, INC.
Consulting Engineers 9240 Rumsey Road; Suite C Columbia, Maryland 21045 Phone 410-884-3607 www.brudls.com

PLOTTED: Monday, September 26, 2011 AT 09:17 AM

FILE: P:\09-002 TEDD\Task 72 MD 404 @ MD 328\Drawings\CADD\Working\pGG-P003\_M404 @ M328.dgn